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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/614,810	07/12/2000	Wilhelmus Hendrikus Alfonsus Bruls	PHN 17,546	7259

7590

11/19/2002

Algy Tamoshunas
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Intellectual Property Department
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EXAMINER

DIEP, NHON THANH

ART UNIT PAPER NUMBER

2613

DATE MAILED: 11/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/614,810

Applicant(s)

BRULS ET AL.

Examiner

Nhon T Diep

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 July 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4 and 5. 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. Figures 1A-1D should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2, 4, 6, 13-14, 16-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Hartung et al (cited by the applicant).

Hartung disclose;a method of embedding auxiliary data in an information signal comprising the step of modifying selected signal samples so as to represent respective symbols of the auxiliary data, characterized in that the signal samples are transformed coefficients obtained by transform coding the information signal and encoded into variable-length code words, the method further comprising the steps of: decoding a variable-length code word indicative of a selected coefficient; modifying the selected coefficient so as to represent an auxiliary data symbol; encoding the modified coefficient into a new variable-

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length code word; and replacing the old code word by the new code word (page 2622, right column, line 30- page 2623, right column, line 9) as specified in claims 1-2, 4, 6, and 11-21; the step of replacing the old code word by a new code word is omitted if the replacing causes the length of a given sequence of code word to substantially exceed the original length of the sequence (page 2623, right column, ln. 42-46: no transmitting in case $n_1 > n_0$) as specified in claim 2; wherein the auxiliary data includes data words each represented by plural combinations of data symbols () 4 and 13; the given sequence is a transport packet of an MPEG transport stream (page 2621, left col., ln. 7-11) as specified in claim 6; and the data symbols are represented by modulo-n values of the selected coefficients, where n is a predetermined number, or $n = 2$ (page 2622, right column, lines 15-22: to embed one bit information, digital bit information 0 or 1) as specified in claims 11-12 and 15.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hartung et al.

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As applied to claim 1 above, it is noted that Hartung et al does not particularly disclose the step of inserting dummy bits in a field provided by the format according to which the signal has been coded, if the replacing causes the length of a given sequence of code words to substantially fall short of the length of the original sequence. Since, in the constant bite rate transmission scheme, it is well known that dummy bits is inserted to obtain a constant bit before transmission and therefore, it would have been obvious to one of ordinary skilled in the art at the time the invention was made to modify the system of Hartung et al to use in case the CBR scheme is desirable and that dummy bits would be used to achieve the scheme.

6. Claims 5 and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartung et al, in view of the prior art figure 1D of the present application.

As applied to claim 2 above, it is noted that Hartung et al does not particularly disclose that the given sequence is a slice of MPEG video signal as specified in claim 5 and the given sequence is the sequence of code words between clock reference time stamps which are accommodated in the signal as specified in claim 7; the selected coefficient is a differential DC coefficient representing the difference between DC coefficients of successive blocks of coefficients as specified in claim 8; the step of modifying the selected coefficient comprises adding such a value that the sum of differential DC coefficients of a given series of blocks is not substantially modified as specified in claim 9; and the series of blocks is a slice of an MPEG video signal as specified in claim 10.

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Prior art figure 1D shows the typical MPEG video sequence which comprises a plurality of slices and begins and ends with time stamps for synchronization at the decoding end of the system and differential DC coefficient (VLC word 111). It would have been obvious to one ordinary skilled in the art at the time the invention was made to omit the replacing if the replacing causes the length of a given sequence of code word to substantially exceed the original length of the sequence whereas the given sequence is a slice of MPEG video signal and the sequence of code words between clock reference time stamps which are accommodated in the signal and also the differential DC coefficient such as word 111 could be chosen.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Birks et al (US 6,373,530) discloses a logo insertion based on constrained encoding.

b. Rhoads et al (US 6,229,924) discloses a method and apparatus for watermarking video images.

c. Chen et al (US 6,300,888) discloses an entropy code mode switching for frequency-domain audio coding.

d. Conover et al. (US 6,373,970) discloses an embedding watermarks into compressed video data.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhon T Diep whose telephone number is 703-305-4648. The examiner can normally be reached on m-f.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris S Kelley can be reached on 703 305-4856. The fax phone numbers for the organization where this application or proceeding is assigned are 703 87209314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305-2600.

ND

November 17, 2002



**NHON DIEP
PRIMARY EXAMINER**